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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,631	12/05/2003	Seiichiro Oku	Q78806	9627

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EXAMINER	
PERVAN, MICHAEL	

ART UNIT	PAPER NUMBER
2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/727,631	OKU ET AL.	
	Examiner	Art Unit	
	Michael Pervan	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) *17-26* is/are withdrawn from consideration.

5)☐ Claim(s) *9-14* is/are allowed.

6)☒ Claim(s) *1-4,8,15 and 16* is/are rejected.

7)☐ Claim(s) *5-7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/5/03 10/26/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 17-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 16, 2007.

Claim Objections

2. Claim 1 is objected to because of the following informalities: "a holding stand, having a transmission unit for transmitting the image data to the thin display devices, and for substantially vertically holding the plurality of thin display devices" leads one to believe that the transmission unit transmits image data and vertically holds the display devices. However, the specification describes the transmission unit as transmitting image data and the holding unit holding the display devices. So for the purposes of examination claim 1 will be understood as –a holding stand, for substantially vertically holding the plurality of thin display devices, having a transmission unit for transmitting the image data to the thin display devices–. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura et al (US 7,154,452).

In regards to claim 1, Nakamura discloses an image display apparatus comprising:

a plurality of thin display devices (Fig. 1; as can be seen from the drawing, plurality of thin devices (electronic paper 10) are shown), each having a communication unit (Figure 2; display driver unit 12) for transmitting and receiving image data expressing an image (col. 6, lines 64-67 and col. 11, lines 30-36) and a display unit (display 11) for displaying an image based on the image data received by the communication unit (col. 6, lines 64-67); and

a holding stand (main unit 20), having a transmission unit (Fig. 12; display luminescence control means 22) for transmitting the image data to the thin display devices (col. 11, lines 30-36; transmitting unit transmits (transfers) image (display) data to the thin display devices (informed connecting terminal number)), and for substantially vertically holding the plurality of thin display devices (Fig. 1; as can be seen from the drawing, the plurality of thin displays are held substantially vertically).

In regards to claim 2, Nakamura discloses an image display apparatus according to claim 1, wherein the holding stand holds the thin display devices such that the thin display devices are stacked on each other (Fig.1; as can be seen from the drawing, the holding stand holds the plurality of thin display devices such that they are stacked on (next to) each other).

In regards to claim 3, Nakamura discloses an image display apparatus according to claim 1, wherein the holding stand includes a holding unit, which can be attached to and detached from the holding stand while the holding stand holds the thin display devices (Fig. 17 and col. 12, lines 17-39; as can be seen from the drawing, the holding unit (connecting terminal) is detached from the holding stand (main unit), while the arrows indicate that the holding unit is attachable).

In regards to claim 4, Nakamura discloses an image display apparatus according to claim 1, wherein the holding stand further includes an input unit, which can input a designation including an image display designation to the display unit (Fig. 6 and col. 10, lines 44-51).

In regards to claim 8, Nakamura discloses an image data writing method for writing image data in a plurality of thin display devices (col. 11, lines 30-36) in a state in which the plurality of detachable thin display devices are stacked on each other and held (Fig. 1; as can be seen from the drawing, the displays (electronic paper) are stacked on (next to) each other), the method comprising the steps of:

when write designation is performed, writing image data expressing an image which has already been written in the plurality of thin display devices in thin display devices respectively located one surface behind thin display devices in which the image data is already written (col. 13, lines 33-39 and col. 14, lines 30-57; if the display devices are reordered then the image data already written would be written one surface behind); and

writing the latest image data designated to be written in a thin display device located at a frontmost surface of the plurality of thin display devices(col. 13, lines 33-39 and col. 14, lines 30-57; if the display devices are reordered then the latest image data would be written to the frontmost surface of the display devices).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 15 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al in view of Nishida (5,767,818) in further view of Someya et al (US 6,759,996).

In regards to claim 15, Nakamura discloses a thin display file including a plurality of thin display devices each having a display unit for displaying an image based on image data expressing an image (Fig. 1 and col. 6, lines 58-67), and a host device (main unit) for holding the plurality of thin display devices (Fig. 1).

Nakamura does not disclose the pages of the thin display devices are connected in series with each other and for sequentially transmitting the image data to the plurality of thin display devices, wherein the host device includes an adding unit for adding, to the image data, page information expressing a page to be displayed in the plurality of thin display devices held as a plurality of pages, and a transmission unit for transmitting the image data, to which the page information has been added by the adding unit, to the

thin display devices; and each of the thin display devices includes a receiving unit for receiving the image data to which the page information has been added, a decision unit for comparing the page information of the image data received by the receiving unit and page setting information preset for each thin display device depending on the series connections between the thin display devices with each other to decide whether or not the page information and the page setting information coincide with each other, a control unit for controlling the display of the display units based on a decision result of the decision unit, and a sending unit for sending the image data, to which the page information has been added, to the thin display device of the subsequent page or the host device.

Nishida discloses the pages of the thin display devices are connected in series with each other and for sequentially transmitting the image data to the plurality of thin display devices (Fig. 2 and col. 6, lines 19-33)

each of the thin display devices includes

a sending unit for sending the image data, to which the page information has been added, to the thin display device of the subsequent page or the host device (since the data is sent sequentially, it is inherent that there be a sending unit to send the data to the subsequent (next) page).

It would have been obvious at the time of invention to modify Nakamura with the teachings of Nishida, displays connected in series and sequentially transmitting image data to the displays, because the wiring would be simplified and able to accommodate an increased number of displays (col. 6, lines 35-36).

Nakamura and Nishida do not disclose wherein the host device includes an adding unit for adding, to the image data, page information expressing a page to be displayed in the plurality of thin display devices held as a plurality of pages, and a transmission unit for transmitting the image data, to which the page information has been added by the adding unit, to the thin display devices; and each of the thin display devices includes a receiving unit for receiving the image data to which the page information has been added, a decision unit for comparing the page information of the image data received by the receiving unit and page setting information preset for each thin display device depending on the series connections between the thin display devices with each other to decide whether or not the page information and the page setting information coincide with each other, a control unit for controlling the display of the display units based on a decision result of the decision unit, and a sending unit for sending the image data, to which the page information has been added, to the thin display device of the subsequent page or the host device.

Someya discloses wherein the host device includes an adding unit (indexer) for adding, to the image data, page information expressing a page to be displayed in the plurality of thin display devices held as a plurality of pages (col. 4, lines 10-12, 23-24), and

a transmission unit (image signal output unit) for transmitting the image data, to which the page information has been added by the adding unit, to the thin display devices (col. 6, lines 25-30); and

each of the thin display devices includes

a receiving unit (image signal receiving circuit) for receiving the image data to which the page information has been added (col. 6, lines 47-51),

a decision unit (index tester) for comparing the page information of the image data received by the receiving unit and page setting information preset for each thin display device depending on the series connections between the thin display devices with each other to decide whether or not the page information and the page setting information coincide with each other (col. 6, lines 61-64),

a control unit (frame selector) for controlling the display of the display units based on a decision result of the decision unit (col. 6, lines 64-67).

It would have been obvious at the time of invention to modify Nakamura and Nishida with the teachings of Someya, image signal containing an index signal designating the image display units on which the image signal is to be displayed, because it allows for a single image signal generating unit to display different images on different image display units (col. 1, lines 61-64).

In regards to claim 16, it is rejected under the same rational as claim 15.

Allowable Subject Matter

7. Claims 9-14 are allowed.

8. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 5-7 and 9-14 recite among other features thin display devices further include a decision unit for comparing the page information and the page position information of the image data received by the communication unit with each other to decide whether or not the page information and the page position information coincide with each other, an updating unit for updating the page position information after the decision made by the decision unit, and a sending unit for sending the image data, to which the page information and the page position information updated by the updating unit have been added, to the thin display device of the subsequent page or the holding stand.

The examiner was unable to find a reference or combination of references that teach the above limitation. However, Someya discloses having a image signal generating unit that embeds an image signal index that designates which display is to display the image signal.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pervan whose telephone number is (571) 272-0910. The examiner can normally be reached on Monday - Friday between 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVP
Apr. 27, 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER